REMARKS

Claims 1-36 are pending in the application. Claims 1-36 stand rejected. Claims 4-6, 8, 13-18, 21-25, 27, 29, and 31-36 were cancelled. Claims 1-3, 9, 11, 19-20, 26, 28, and 30 were amended. Claims 37-48 were added. Claims 1-3, 7, 9-12, 19-20, 26, 28, 30, and 37-48 remain in the application.

Claims 1-27 and 30-36 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,441,919 to Parker et al (hereafter referred to as "Parker"). Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parker as applied to Claim 22 and further in view of U.S. Patent No. 6,049,390 to Notredame.

Claims 4-6, 8, 13-18, 21-25, 27, 29, and 31-36 were cancelled.

Claim 1 was amended to include language similar to original claims 4 and 6. Amended Claim 1 states:

1 (currently amended). A method for one pass assembly in raster image processing of image elements using memory, the method comprising the steps of:

forming a plurality of lists from image elements within a job file, the plurality of lists including a first list of recurring image elements that do not have any variable image elements below them on a stack of image layers and a second list of variable image elements that are not recurring and recurring image elements that have variable image elements both above and below them on a stack of image layers;

storing the elements of the first list in rasterized form;

storing the elements of the second list in non-rasterized form;

identifying placement within at least one memory area of the recurring image elements and the variable image elements;

initializing the at least one memory area with the stored elements from the first list; and

then, raster image processing the at least one memory area with the stored elements from the second list.

Claim 1 is supported by the application as filed, notably original claims 1, 4, 6, 13, and 22; and at page 5, line 16 to page 6, line 26.

In relation to Claims 4 and 6, the rejection stated:

"Regarding claims 4 and 16, Parker further discloses wherein

the step of forming further comprises forming the first list with recurring image elements that do not have any variable image elements below them on a stack of image layers (see column 4 lines 42-45, column 6 lines 41-63, and column 7 lines 15-25)."

"Regarding claim 6, Parker further discloses wherein the step of forming further comprises forming the second list from variable image elements that are not recurring and from recurring elements that have variable image elements both below them on a stack of image layers and above them on the stack of image layers (see Figs. 1 and 2, column 1 line 62-column 2 line 4, column 4 line 42-50, and column 7 line 15-column 8 line 23)."

The rejection is not supported by Parker, at least insofar as amended Claim 1.

Claim 1 requires:

"a second list of variable image elements that are not recurring and recurring image elements that have variable image elements both above and below them on a stack of image layers" (emphasis added)

"storing the elements of the second list in non-rasterized form;" (emphasis added)

In Parker, each reusable object is stored in rasterized form. Parker states:

"The system maintains reusable objects in rendered form in a cache and renders each page from its own page list of reusable and single-use objects."
(Parker, col. 4, lines 42-45; emphasis added)

The stated "rendered form" is the same as rasterized form. (See Parker, abstract, which states: "A technique for rendering reusable objects, storing the resulting raster data in a cache"; see also Parker, col. 5, lines 13-17 and col. 8, lines 9-17 and 54-64) Parker similarly states:

"The technique includes rendering the reusable objects and storing the resultant raster data in a cache". (Parker, col. 1, lines 62-64)

"rendering each reusable object and caching the resulting raster data" (Parker, col. 2, lines 49-50)

"For each of the required objects, the following steps are performed (loop from steps 54 to step 46). First, the object is identified as a single-use object or reusable object (step 46). It it is reusable, the scheduler checks whether the object has already been rendered and stored in the cache 30 (step 48). If not, then the object is assigned to an available rasterizer-

compositor and a place for the object is reserved in the cache (step 50). The selected <u>rasterizer-compositor renders the reusable object</u> into a frame buffer and stores the resultant data". (Parker, col. 7, lines 15-24); <u>emphasis added</u>)

See also Parker, col. 3, lines 42-46 and 61-65; col. 4, lines 17-20 and Figure 2. The above language from Parker teaches against storing any recurring image elements in non-rasterized form and, thus, teaches against Claim 1.

Claim 1 also requires that the image elements go into the at least one memory area in a particular order: initializing with the stored elements from the first list and then, raster image processing with the stored elements from the second list. The order depends on whether elements are recurring or variable and the image elements above or above and below in the stack of image layers. This contrasts with Parker, which interleaves reusable and single-use objects in an order originally defined by the author of the source file. Parker states:

"The page object list need not literally be a list; it can be any data structure that identifies the necessary objects and <u>their paint order, originally defined by the author of the source PDF input file</u>." (Parker, col. 8, lines 3-6; <u>emphasis added</u>)

"Having a page assignment, <u>a rasterized-compositor paints the objects into the frame buffer according to the paint order of the page</u>, by compositing reusable elements into the frame buffer and rendering single-use elements into the frame buffer." (Parker, col. 8, lines 9-13; <u>emphasis added</u>)

Parker does not disclose a further requirement of Claim 1, storing a specific type of recurring elements in non-rasterized form. That specific type is "recurring image elements that have variable image elements both above and below them on a stack of image layers". Parker treats all reusable elements the same. (See above quotes)

Claims 2-3, 7, 9-12, 28, and 30 are allowable as depending from Claim 1 and as follows.

The rejection stated as to Claim 2:

"Regarding claim 2, Parker further discloses the step of placing additional recurring image elements in the at least one memory area after the step of raster image processing (see Figs. 1 and 2 and column 7 lines 15-25)."

Claim 2 states:

2. The method of claim 1, wherein the forming of the plurality

of lists includes forming a list of recurring elements having one or more
variable elements below and no variable elements above in the stack of image
layers to provide an additional list; and the method further comprises:

rasterizing and then storing the elements of the additional list;
and

placing the stored, rasterized elements of the additional list in
the at least one memory area after the step of raster image processing.

Claim 2 is supported by the application as filed, notably the original claims and at
page 6, lines 19-26. Parker discloses rasterizing each reusable object. (Parker,
Figures 1 and 2 and col. 7, lines 15-25) That is unlike Claim 2, which forms three
different lists that include specific types of recurring elements, and puts the image
elements in the at least one memory area based on the lists.

Claim 3 is allowable as depending from Claim 2 and as follows. Claim
3 states:

3. The method of claim 2, wherein the step of placing further
comprises opaquely placing the elements of the additional list in the at least
one memory area.

Claim 3 is supported by the application as filed, notably the original claims and at
page 8, lines 6-7. Parker does not disclose opaquely placing recurring elements
following raster image processing. Parker instead uses a paint order originally
defined by the file author and uses a mask that defines transparent pixels. (Parker,
col. 7. lines 22-28 and col. 8, lines 3-6 and 9-13)

As to Claim 9 the rejection states:

"Regarding claim 9, Parker further discloses wherein the step
of identifying further comprises identifying clip regions that are non-
rectangular to calculate overlapping areas (see column 8 lines 32-66)."

Claim 9 states:

9. The method of claim 7, wherein the step of identifying
further comprises identifying non-rectangular overlapping areas.

The rejection cites a portion of Parker that is silent as to non-rectangular overlapping
areas. The office action also cites a PDF reference manual in the Response to
Arguments as to "rectangles or bounding boxes", which would not teach or suggest
Claim 9, even if the references were to be cited in combination.

As to Claim 30, the rejection stated:

"Regarding claim 30, Parker further discloses the step of storing image elements in a raster-equivalent graphics state that allows the image elements to be reused and rotated (see column 1 line 62-column 2 line 4, column 4 lines 42-50, and column 7 line 15-column 8 line 23)."

Claim 30 states:

30 (currently amended). The method of claim 2, further comprising the step of storing the recurring elements in a raster-equivalent graphics state and rotating one or more of said recurring elements.

Claim 30 is supported by the application as filed, notably original claim 30. The cited portions of Parker relate to reuse of image elements. Parker is silent as to rotating one or more recurring elements.

Claim 37 replaced Claim 22 and is supported and allowable on the same basis as Claim 1.

Claims 38-44 are allowable as depending from Claim 37 and as follows.

Claim 38 is supported and allowable on the same basis as Claim 2.

Claims 39-43 are allowable as depending from Claim 38 and as follows.

Claim 39 is also supported at page 11, lines 20-21.

Claim 40 is also supported and allowable on the same basis as Claim 3.

Claims 41-42 state:

41. The method of claim 38 wherein said rasterizing further comprises rasterizing and then storing all of said recurring elements prior to said forming.

42. The method of claim 41 further comprising deleting ones of said rasterized and stored recurring elements that are not needed.

Claims 41-42 are also supported at page 7, lines 15-19. Claim 41 requires that all of the recurring elements are prerasterized, including recurring elements of the second list that are then stored in the at least one memory area in non-rasterized form. Parker does not disclose this combination. It is apparent that the procedure of Claim 41 can store unnecessary elements. Claim 42, which depends from Claim 41, provides for deletion of such unnecessary elements. Parker does not even recognize this issue, since each reused object in Parker is rasterized before use. (See Parker quotes in

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above discussion of Claim 1.)

Claim 43 is supported by the application as filed, notably at page 12, lines 3-6. Claim 43 is also allowable as depending from Claim 41.

Claim 44 is supported and allowable in the same manner as Claim 41.

Claim 45 replaces Claim 13 and is supported and allowable on the same basis as Claim 1.

Claims 46-48 and 19-20 are allowable as depending from Claim 45 and as follows.

Claim 46 is supported and allowable on the same basis as Claim 2.

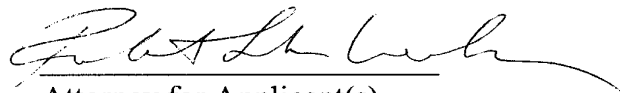Claim 47 is supported on the same basis as Claim 39.

Claim 48 is supported on the same basis as Claim 43.

Claims 19-20 were amended to depend from and be in accord with Claims 46 and 44, respectively.

It is believed that these changes now make the claims allowable and, if there are any problems with these changes, Applicants' attorney would appreciate a telephone call.

In view of the foregoing, it is believed none of the references, taken singly or in combination, disclose the claimed invention. Accordingly, this application is believed to be in condition for allowance, the notice of which is respectfully requested.

Respectfully submitted,

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